

## ABSTRACT

A method of decompressing data words of an instruction set includes:

- A. filling a primary dictionary with at least one primary data word of the instruction set, each of the at least one primary data word being stored in the primary dictionary in a location associated with a distinct primary dictionary index;
- B. filling at least one secondary dictionary with at least one difference bit stream, each of the at least one difference bit stream being stored in one of the at least one secondary dictionary in a location associated with a distinct secondary dictionary index;
- C. receiving a code word, the code word comprising:
  - a. a header which identifies the primary dictionary and a specific one of the at least one secondary dictionary;
  - b. a first bit stream; and
  - c. a second bit stream;wherein the first bit stream comprises the distinct primary dictionary index and the second bit stream comprises the distinct secondary dictionary index;
- D. retrieving the primary data word stored at the location in the primary dictionary location associated with the distinct primary dictionary index;
- E. retrieving the difference bit stream stored at the location in the at least one secondary dictionary location associated with the distinct secondary dictionary index; and
- F. performing a logic operation on the primary data word and the difference bit stream to obtain a resultant data word that is not stored in either the at least one primary dictionary or the at least one secondary dictionary.